

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

FENSTER & COMPANY
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PCT

WRITTEN OPINION
(PCT Rule 66)

Date of mailing
(day/month/year)

04.11.2005

Applicant's or agent's file reference
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International application No.

PCT/IL 03/01035 ✓

International filing date (day/month/year)

08.12.2003

Priority date (day/month/year)

08.12.2003

International Patent Classification (IPC) or both national classification and IPC
G03G9/12, G03G15/01

Applicant

HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P. et al.

1. This written opinion is the **first** drawn up by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☒ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☒ Certain observations on the international application
3. The applicant is hereby **invited to reply** to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also: For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 08.04.2006

Name and mailing address of the international preliminary examining authority:



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RECEIVED

Docketed By IK

08 NOV 2005
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FENSTER & Co.

I. Basis of the opinion

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"*):

Description, Pages

1-15 as originally filed

Claims, Numbers

1-43 as originally filed

Drawings, Sheets

1/2-2/2 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
 - ☐ the language of publication of the international application (under Rule 48.3(b)).
 - ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:
- ☐ contained in the international application in written form.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority in written form.
 - ☐ furnished subsequently to this Authority in computer readable form.
 - ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
 - ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.
4. The amendments have resulted in the cancellation of:
- ☐ the description, pages:
 - ☐ the claims, Nos.:
 - ☐ the drawings, sheets:
5. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).
6. Additional observations, if necessary:

IV. Lack of unity of invention

1. In response to the invitation (Form PCT/PEA/405) to restrict or pay additional fees, the applicant has:

- ☐ restricted the claims.
- ☒ paid additional fees.
- ☐ paid additional fees under protest.
- ☐ neither restricted nor paid additional fees.

2. ☐ This Authority found that the requirement of unity of invention is not complied with for the following reasons and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees:

3. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this opinion:

- ☒ all parts.
- ☐ the parts relating to claims Nos. .

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-6 8 9 11 14 18-21 23 27 28 33 34
Inventive step (IS)	Claims	7 10 12 13 22 24-26 29-32 35 36 38-42
Industrial applicability (IA)	Claims	

2. Citations and explanations

see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Reference is made to the following documents:

- D1: PATENT ABSTRACTS OF JAPAN vol. 2000, no. 11 (2001-01-03) & JP 2000 235284 A (DAINIPPON PRINTING CO. LTD.) (2000-08-29)
- D2: PATENT ABSTRACTS OF JAPAN vol. 2003, no. 07 (2003-07-03) & JP 2003 091092 A (KOKUYO CO LTD; KISO KASEI SANGYO KK), 28 March 2003
- D3: CA 989 683 A (RANK XEROX LTD) 25 May 1976 (1976-05-25)
- D4: PATENT ABSTRACTS OF JAPAN vol. 0176, no. 88 (P-1662),(1993-12-16) & JP5232840 A (NIPPON TELEGR & TELEPH CORP <NTT>),(1993-09-10)

Re Item V

A Lack of novelty (Article 33(2) PCT)

A.1 D1 discloses a lusterless wet developing agent for printing by electrostatic plotter and electrophotographic system, consisting of resin particles comprising an inorganic uncoloured¹ matte pigment, dispersed in electrically insulated dispersion medium (claims 1, 2 and [0048]). Furthermore the filler does not deteriorate the transparency of the toner system. The matte pigment has a particle size of 0.5-20 microns (e.g. 1.2, 1.8 3.0, 3.5 microns) (claim 2 and Tab. 1). The amount of matte pigment with respect to the acrylate copolymer is given in an example as 20% by weight ([0118]). The co-polymer resin particles consist of a core part insoluble in the dispersion medium and a peripheral part enveloping the core part and soluble or swellable in the dispersion medium (PAJ abstract). A method of printing a complete or partial matte layer on or beneath a printed image is also disclosed ([0111]-[0116] and fig. 10).

The subject matter of claims 1-6 8 9 11 14 18-21, 23, 27, 28, 33 34 is therefore not considered to be new in the sense of Article 33(2) PCT.

¹ A Japanese colleague confirmed that in paragraph [0048] reference is made to an **uncoloured** filler (fourth line last two words of [0048]). Unfortunately no official translation is available to us.

B Lack of inventive step

B.1 The man skilled in the art, striving for optimizing the product properties (in this case i.e weight percentage of additive and melt flow index of toner resin) would, starting from the teaching of **D1** by routine experiments, arrive at the subject matter of the present claims 7, 10 and 12, 13.

B.2 The technical features of claims 22, 24-26 and 29-32 are a mere embodiment within the ambit of a main claim. The features thereof have not been shown to substantiate to a solution of a technical problem in a non-obvious manner for the man skilled in the art.

The subject matter of claims 7, 10, 12, 13, 22, 24-26 and 29-32 is therefore not considered to involve an inventive step as required by Article 33(3) PCT.

B.3 **D4** is considered as the closest prior art with respect to the subject matter of claims 35, 36 and 38-42. It discloses a printer comprising three reservoirs **A, B, C** holding colored toners and a reservoir **D** holding a liquid, colorless, transparent toner and a printing engine which applies the three color toners, thereby producing an image and subsequently applying the colorless, transparent in a way to produce glossy, semi-glossy or mat surface appearance (Fig. 1, [0011]-[0013]. The different effects are based on the application of distinct pixel patterns of the colorless, transparent toner (figs. 2 and 3 and [0013]-[0016]). The transparent, colorless toner can be applied selectively to different parts of the image receiving sheet thereby creating adjacent areas with different glossiness (fig. 2 and [0018]).

The subject matter of claims 35, 36 and 38-42 *differs* from the disclosure of **D4** in that the liquid, colorless toner comprises a particulate additive and is therefore matte.

The effect of this difference is that the matte effect comes from the additive, not the pixel pattern.

The remaining problem to be solved can be considered to be to provide an alternative printer which allows for producing surface coatings leading to selectively applicable areas with different glossiness values.

The alternative provided by the applicant is obvious in the light of the prior art for the following *independent* reasons:

(I) it constitutes a *simplification* with respect to the solution disclosed in **D4** because the matte effect is directly created by the application of a matte toner. Such a simplification does not involve an inventive step.

in addition

(ii) in **D1** it has been shown that matte liquid toners are used in electrophotographic systems for creating patterned surfaces leading to layers with selective glossiness. The man skilled in the art, when looking for an alternative method of creating a selective, matte surface effect and starting from the printer disclosed in **D4** and taking into account the matte liquid toner disclosed in **D1**, would without the use of inventive skill employ this matte, liquid toner in the reservoir D of **D4**, thereby coming to a printer falling under the scope of claims 35, 36 and 38-42.

B.4 Claims 35, 36 and 38-42: The man skilled in the art starting from the teaching of **D1** alone, would conceive a printer with at least four reservoirs, three for the common colors cyan, magenta and yellow and one for the matte, liquid toner. It seems so obvious to the international preliminary examination authority that one could even speak of implicit disclosure in the sense of the PCT International Preliminary Examination Guidelines (version of 09.10.1998) IV-7.2.